A very high resolution space telescope using the Earth atmosphere as the objective lens

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Telescopes are the basic tools of astronomy, astrophysics and space program. Very high resolution telescopes are needed to study planets of neighboring stellar systems and life beyond earth. Telescope resolution is limited by its entrance pupil, but current technology limits telescope apertures 10 about 10-meters in diameter.

The Earth's atmosphere refracts sunlight such that the sun's image appears about a half degree above its real position during sunset. If we could build a space telescope using the earth's atmosphere as an objective lens to collect photons of a far away star, the effective aperture of such a space telescope would be the diameter of the earth Telescope resolution could be enhanced by up to seven orders of magnitude and would enable detailed images of planets in far away stellar systems.